

Moody's Investors Service

Testimony of Warren Kornfeld Managing Director Moody's Investors Service

Before the
Subcommittee on Financial Institutions and Consumer Credit
U.S. House of Representatives

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Good morning Chairwoman Maloney, Ranking Member Gillmor, and members of the Subcommittee. My name is Warren Kornfeld, and I am a managing director for the residential mortgage backed securities rating team at Moody's Investors Service. On behalf of my colleagues, let me thank the Subcommittee on Financial Institutions and Consumer Credit for the opportunity to participate in today's panel on the role of the secondary market in subprime mortgage lending.

As you know, the subprime residential mortgage market has been attracting considerable attention recently because subprime mortgage loans originated in 2006 are experiencing more delinquencies and defaults than did loans originated during the prior few years. The steady increase in the risk characteristics of loans made to subprime borrowers over the past several years and the recent slowing in home price appreciation have been major contributors to this weakening performance. I have focused my statement on Moody's views on the credit performance of the subprime mortgage securitization market, the process of packaging subprime mortgages into bonds or other fixed-income securities, the role of rating agencies in the subprime mortgage securitization market, the credit factors that Moody's considers when rating mortgage-backed securities, and the structural features of securitizations that affect loan modification.

I would note at the outset that rating agencies have a limited and specific role in the securitization process: we provide an objective independent opinion on the creditworthiness of a security when we are asked to rate it. Moreover, Moody's opinions speak only to one aspect of the subprime securitization market, specifically the credit risk

associated with the bonds that are issued. Finally, the observations and information contained herein are largely based on data and experience related to the subprime mortgage securitizations that Moody's rates, and not on the broader subprime mortgage market, some of which was securitized by the originators and rated by rating agencies other than Moody's, and some of which was not securitized. Consequently, our comments should not be construed as representing the state of the entire subprime lending market.

I. Background on Moody's

Rating agencies occupy a niche in the investment information industry.

Our role is to disseminate information about the relative creditworthiness of, among other things, corporations, governmental entities, and pools of assets collected in securitized or "structured finance" transactions. Moody's is the oldest bond rating agency in the world, having introduced ratings in 1909. From its beginning, Moody's focused on rating debt instruments. By 1924, Moody's was rating nearly every bond in the United States bond market.

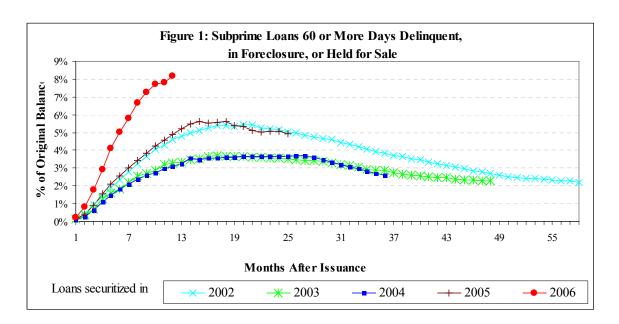
Today, we are one of the world's most respected, widely utilized sources for credit ratings, research and risk analysis and our Structured Finance Group is the leading source of credit ratings and research for the structured finance market. The firm publishes market-leading credit opinions, deal research and commentary, serving more than 9,300 customer accounts at some 2,400 institutions around the globe. Our ratings and analysis track debt covering more than 100 sovereign nations, 12,000 corporate issuers, 29,000 public finance issuers, and 96,000 structured finance obligations.

Moody's ratings are forward-looking opinions regarding relative expected loss, which reflects an assessment of both the probability that a debt instrument will default and the amount of loss the debt-holder will incur in the event of default. Our ratings are expressed according to a simple system of letters and numbers, on a scale which has 21 categories ranging from Aaa to C. The lowest expected credit loss is at the Aaa level, with a higher expected loss rate at the Aa level, a yet higher expected loss rate at the A level, and so on down through the rating scale. In other words, the rating system is not a "pass-fail" system; rather, it is a probabilistic system in which the forecasted probability of future loss rises as the rating level declines.

Therefore, while Moody's ratings have done a good job predicting the relative credit risk of debt securities and debt issuers, as validated by various performance metrics including default studies, they are not statements of fact about past occurrences or guarantees of future performance. Furthermore, ratings are not investment recommendations. Moody's credit ratings provide an opinion on only one characteristic of fixed income securities or issuers of fixed income securities – the likelihood that debt will be repaid. That is just one element, and in many cases not the most material element, in an investor's decision-making process for credit-sensitive securities. Credit ratings do not address many other factors in the investment decision process, including the price, term, likelihood of prepayment or relative valuation of particular securities.

II. Moody's views on the credit performance of the subprime mortgage market

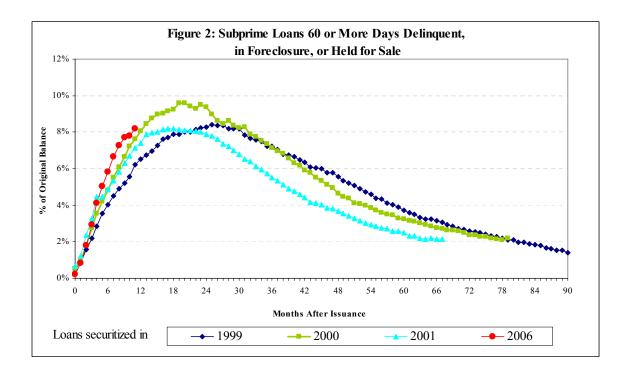
The majority of subprime mortgages originated between 2002 and 2005 have performed at or better than subprime loans have generally performed historically. In contrast, the mortgages that were originated in 2006 are not, on the whole, performing as well. *Figure 1*² shows that the level of seriously delinquent subprime loans included in securitizations issued in 2006 and rated by Moody's is significantly worse than those included in securitizations issued between 2002 and 2005. Put differently, more borrowers are becoming seriously delinquent on 2006 subprime loans than borrowers on loans originated between 2002 and 2005.



This statement is based on the information that Moody's presently has on the performance of these loans and is subject to change as the loans mature.

The data presented in this figure relates only to loans used in the securitizations that Moody's has rated, and therefore should not be construed as representing the entire subprime market.

However, it should be noted that the 2006 loans are thus far, on average, performing similarly to loans originated and securitized in 2000 and 2001 (see Figure 2).³



The performance of 2006 subprime loans follows a pattern that is a typical part of a residential housing credit cycle (although the amount of such loans outstanding is greater than the amount during the last cycle, both in absolute terms and as a percentage of total mortgage originations). During periods of growth in the housing market, borrowing demand increases, with existing mortgage lenders expanding their business and new lenders entering the market. Eventually, this leads to overcapacity in the mortgage lending market. If borrowing demand slows or falls (due to, for example, rising interest rates, slowing home price appreciation, or a slowing economy) competition among lenders for the reduced pool of borrowers intensifies. In order to maintain

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origination volume, lenders may lower their credit standards and make loans that are more likely to become delinquent and default.

Lending behavior in the subprime mortgage market over the past few decades has, in large part, followed this pattern, and through 2005 and 2006, in an effort to maintain or increase loan volume, lenders made it easier for borrowers to obtain loans. For example, borrowers could:

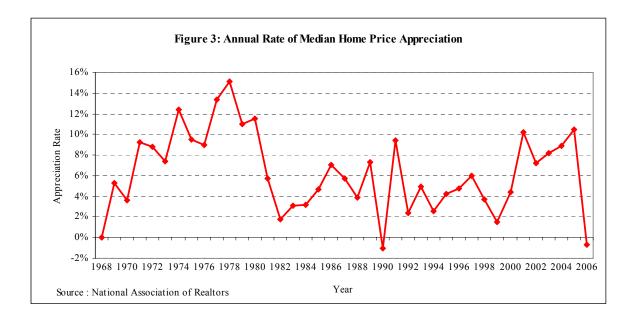
- obtain a mortgage with little or no money down;
- choose to provide little or no documented proof of income or assets on their loan application;
- obtain loans with low initial "teaser" interest rates that would reset to new,
 higher rates after two or three years;
- opt to pay only interest and no principal on their loans for several years, which lowered their monthly payments but prevented the build-up of equity in the property; or
- take out loans with longer terms, for example of 40 years or more, which have lower monthly payments that are spread out over a longer period of time and result in slower build-up of equity in the property.

The weaker performance of 2006 subprime mortgage loans is in large part due to the increasing risk characteristics of those mortgages. Often a loan was made with a combination of these characteristics, which is also known as "risk layering".

In addition, slowing and in some cases declining home price appreciation (see *Figure 4*) has negatively impacted the ability of individuals to gain quick profits

from houses they purchased with the expectation that they would be able to resell them in the immediate future for significantly greater sums. In prior years, these speculators – generally referred to as "flippers" – could rely on rising home prices to trade out of a home and repay a mortgage that they could not otherwise afford to pay.

As the housing market has weakened, the monthly payment obligations on these loans have caught up with many such borrowers, resulting in higher delinquencies and defaults. Furthermore, many subprime lenders tightened their lending criteria in late 2006 and early 2007, which may reduce future refinancing options for troubled borrowers.



III. The process of securitizing subprime mortgages

The use of securitization has grown rapidly both in the US and abroad since its inception approximately 30 years ago. Today, it is an important source of

funding for financial institutions and corporations. Securitization is essentially the packaging of a collection of assets, which could include mortgage loans, into a fixed income "security" that can then be sold to bond investors. The underlying group of assets is also called the underlying "pool" or "collateral". Securitization transactions vary in complexity depending on specific structural and legal considerations as well as on the type of asset that is being securitized.

Like other assets, subprime mortgages can be packaged into bonds using securitization. These bonds are commonly referred to as "mortgage-backed securities" ("MBS") or "asset-backed securities" ("ABS"), which are then sold into the market like any other bond. As noted earlier, not all subprime mortgages have been securitized and Moody's has not rated all of those that were securitized. Moody's, therefore, cannot speak to the developments in the overall market. However, according to the Mortgage Bankers Association, total mortgage loan origination volume in 2006 was approximately \$2.5 trillion and of this, we estimate that approximately \$1.9 trillion (76%) was securitized. Moreover, according to Inside Mortgage Finance, approximately 20% of total originations were subprime loans and we estimate that roughly 25% of the total mortgage securitizations were backed by subprime mortgages.

Before discussing in greater detail the process of securitizing subprime mortgages, it is important to understand the role played by the various market participants:

- Subprime borrowers borrowers who have weaker credit histories.
- Mortgage originators, or lenders entities that make the loans, such as banks or mortgage finance companies.

- Intermediaries generally banks or investment banks that structure the securitizations and sell the bonds that are issued to the investors.
- Trustees entities that are responsible for administering the securitizations.
- Servicers entities that collect all payments on the subprime mortgage loans from the borrowers.
- Investors entities that purchase the bonds which are backed by the assets and their related cash flows. In the securitization market, the investors are typically sophisticated institutional investors who generally make their investment decisions based on their own analysis, with ratings being one of many factors that they consider.

In securitizing subprime mortgages, the following steps are generally taken. First, a large number of subprime residential mortgage loans (typically thousands) are identified for securitization by the mortgage originator. Second, the originator creates a trust, limited liability company or corporation, which is the securitization issuer. The originator then sells all of its legal right to receive monthly payments on the subprime mortgages to the trust. The trust is now the "owner" or "holder" of the loans. Finally, the trust issues and sells bonds to investors. The bonds obligate the trust to make monthly payments to the investors. The trust uses the monthly loan payments it receives from borrowers on their mortgages to make the payments to the bond investors.

Securitizations, including those of subprime mortgage loans, use various features to protect bondholders from losses. The more loss protection (also referred to as "credit enhancement") a bond has, the higher the likelihood that the investors holding that

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⁴ For ease of reference, we will refer to these types of new entities as the "trust".

bond will receive the interest and principal promised to them. Some common types of loss protection are:

- a guarantee from a creditworthy entity, like an insurance company, that all or
 a certain portion of the losses above a certain level will be covered;
- "overcollateralization", which is the amount by which the aggregate amount
 of mortgage loans exceeds the aggregate amount of bonds issued;
- "subordination", which means that instead of all bonds in the securitization sharing losses equally, losses are borne by bonds sequentially in reverse order of seniority; and
- "excess spread", which refers to the application of any excess amount of
 interest collected on the loans over the amount of interest payable on (and fees
 and expenses payable with respect to) the bonds to cover loan losses.

Figure 4 represents a simple subprime securitization transaction, where four classes, or "tranches", of bonds totaling \$90 are issued and are backed by loans totaling \$100. In this structure, losses would first be applied to reduce the "\$10 net worth", or overcollateralization. Only when the losses exceed the overcollaterization amount would the bond balances be affected. Losses would be applied to the bond tranches in reverse order of seniority, such that losses are not allocated to a given tranche until the balances of all tranches that have a lower priority have been reduced, or written down, to zero.

Figure 4		
Simplified Balance Sheet for a Typical Subprime Securitization		
Assets (Loans)	Liabilities (Bonds) + Net Worth	
\$100 Mortgages	\$65 Senior Bond	
	\$10 Mezzanine Bond #1	
	\$10 Mezzanine Bond #2	
	\$5 Subordinated Bond	
	\$10 Net Worth ("Overcollateralization")	

For example, if the losses on the pool of mortgages were \$20, as shown in *Figure 5*, then the outstanding balance of the mortgage loan pool would fall to \$80. At this point, the overcollaterization amount would be reduced, or "written down" from \$10 to zero, and the remaining \$10 of losses would result in losses for both the \$5 subordinated bond and the \$10 mezzanine bond #2. The principal amount of the \$5 subordinated bond would be written down to zero, and then the \$10 balance of mezzanine bond #2 would be reduced by the remaining \$5 of losses to a balance of \$5. Losses are not allocated to a given tranche until the balances of all tranches that have a lower seniority have been written down to zero.

Figure 5		
Securitization After Incurring \$20 of Losses		
Assets (Loans)	Liabilities (Bonds) + Net Worth	
\$80 Mortgages	\$65 Senior Bond	
	\$10 Mezzanine Bond #1	
	\$5 Mezzanine Bond #2	
	\$0 Subordinated Bond	
	\$0 Net Worth ("Overcollateralization")	

Consequently, the likelihood that an investor in a particular tranche will receive both the principal and interest due on the bond depends not only on the quality of the loans in the securitization, but also on the amount of loss protection provided. The higher the seniority of a bond issued in a securitization, the greater protection it will have against losses, making it more likely to be repaid in full—meaning it is "less risky." Conversely, the lower the seniority of a bond, the less protection it will have against losses, making it less likely to be repaid in full. As a result, the tranches of a subprime securitization generally receive progressively lower ratings as the seniority of the tranches gets lower. Each progressively more subordinate bond has less loss protection because each has fewer bonds that can provide a cushion to absorb losses in case of defaults on some of the loans in the pool. Furthermore, because losses on subprime loans are generally expected to be much higher than losses on "prime" loans, a greater amount of loss protection is needed in a subprime securitization for a given tranche to receive the same rating as a similar tranche of a prime securitization.

IV. The role of rating agencies in the mortgage securitization market

Rating agencies come into the mortgage securitization process well after a loan has been made by a bank or lender and identified to be sold and pooled into a residential mortgage-backed security. We do not participate in the origination of the loan nor structure the security. Our role is to evaluate the overall credit risk of a securitization using statistical summaries and to give our credit opinion through assigning a rating, just as we do for other asset classes, such as auto loans, student loans or commercial real estate.

It is important to note that, in the course of rating a transaction, we do not see loan files or data identifying borrowers or specific properties. Rather, we rely on the information provided by the originators or the intermediaries, who in the underlying deal documents provide representations and warranties on numerous items including various aspects of the loans, the fact that they were originated in compliance with applicable law, and the accuracy of certain information about those loans. The originators of the loans issue representations and warranties in every transaction. While these "reps and warranties" will vary somewhat from transaction to transaction, they typically stipulate that, prior to the closing date, all requirements of federal, state or local laws regarding the origination of the loans have been satisfied, including those requirements relating to: usury, truth in lending, real estate settlement procedures, predatory and abusive lending, consumer credit protection, equal credit opportunity, and fair housing or disclosure.

V. How Moody's rates and monitors mortgage-backed securities

Moody's would not rate a security unless the originator or intermediary had made reps and warranties such as those discussed above. In rating a subprime mortgage backed securitization, Moody's estimates the amount of cumulative losses that the underlying pool of subprime mortgage loans are expected to incur over the lifetime of the loans (that is, until all the loans in the pool are either paid off or default). Because each pool of loans is different, Moody's cumulative loss estimate, or "expected loss," will differ from pool to pool.

In arriving at the cumulative loss estimate, Moody's considers both quantitative and qualitative factors. We analyze over 50 specific characteristics of the

loans in a pool,⁵ which help us project the future performance of the loans under a large number of different projected future economic scenarios. The data we analyze include:

- credit bureau scores, which provide information about borrowers' loan repayment histories,
- the amount of equity borrowers have in their homes,
- how fully the borrowers documented their income and assets,
- whether the borrower intends to occupy or rent the property, and
- whether the loan is for purchase of a home or for refinancing an existing mortgage loan.

Next, we consider the more qualitative factors of the asset pool such as the underwriting standards that the lender used when deciding whether to extend a mortgage loan, past performance of similar loans made by that lender, and how good the servicer has been at collection, billing, record-keeping and dealing with delinquent loans. We then analyze the structure of the transaction and the level of loss protection allocated to each tranche of bonds. Finally, based on all of this information, a Moody's rating committee determines the rating of each tranche.

Moody's regularly monitors its ratings on securitization tranches through a number of steps. We generally receive updated loan performance statistics on a monthly basis. Using this data, we assess the entire database of transactions we have rated on a monthly basis (sometimes more often), and flag potential rating "outliers" – securities

As noted earlier, we do not receive any personal information that identifies the borrower or the property.

whose deal performance indicates that the current rating may not be consistent with the current estimated risk of loss on the security. Once a specific rating is flagged, a Moody's surveillance analyst will further investigate the status of the transaction and consider whether a rating change should be considered. Moody's does not take wholesale rating actions based on market speculation. Moody's carefully and deliberately considers the data that we receive, on a transaction-by-transaction basis, relevant to the securities we have rated, and we conduct the rating process judiciously to make sure that such relevant information is appropriately considered.

VI. Moody's views on the subprime mortgage securitization market

Over the past several years, Moody's cumulative loss expectations for subprime mortgage securitizations have steadily increased, by approximately 30% in aggregate, in response to the increasing risk characteristics of subprime mortgage loans and changes in our market outlook. As Moody's loss expectations have increased over the past few years, the amount of loss protection on bonds we have rated has also increased. Consequently, bonds issued in 2006 which have been rated by Moody's have greater amounts of credit enhancement when compared to similarly rated bonds that were issued in prior years.

As discussed above, delinquencies and early losses of loans originated in 2006 are higher than in previous years, but are comparable to those of loans originated in 2000 and 2001.⁶ While the employment outlook today is stronger than what was experienced in the post-2000 period, the outlook for other major drivers of mortgage

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See *Figures 2* above, which show that early delinquencies for the 2006 loans in securitizations rated by Moody's are tracking those of 2000 and 2001 loans (which had cumulative losses of approximately 6% after 72 months) but are showing signs of an increasing trend.

losses – home price appreciation, interest rates and refinancing opportunities for subprime borrowers facing rate / payment resets – is less favorable. As a result, Moody's is currently projecting that cumulative losses for loans backing 2006 subprime securitizations will generally range between 6% and 8% versus our original estimate of approximately 5.5% to 6%.

Given our increased loss expectations on 2006 subprime pools, we expect greater volatility of ratings on in the low investment grade (i.e., ratings in the **Baa** category) and speculative grade (i.e., ratings in the **Ba** and below categories) bonds than we have seen in recent years. It should be noted that 95% of all bonds backed by subprime mortgage loans are rated A or higher. Therefore, barring cumulative losses well in excess of current expectations, we do not expect a material number of downgrades in this category of bonds.

VII. Impediments to mitigating potential foreclosures

If a borrower misses a mortgage payment when due, and becomes "delinquent", the servicer will remind the borrower of the obligation to make the required loan payment. If the borrower continues to be delinquent on one or more payments, the servicer will often try to work with the borrower to resolve the problem. It is up to the servicer to try to prevent borrowers from defaulting and to minimize losses if a borrower does default. Furthermore, if the servicer forecloses on and sells a house, the sales proceeds – after paying legal costs, real estate broker fees and other expenses – will usually be less than the amount owed on the loan. As a result, the servicer is generally

motivated to resolve problems and avoid foreclosures. One of the tools used by servicers to prevent foreclosures is to modify some of the terms of the loan.

Loan modifications are typically aimed at providing borrowers an opportunity to make good on their loan obligations and may include interest rate reductions, loan term extensions, payment deferrals, and forgiveness of payments, penalties or principal. Because these modifications are aimed at reducing or postponing borrowers' payments, they are particularly useful in mortgage environments such as the current subprime market, where delinquencies are increasing.

Moody's believes there will likely be an increase in the use of loan modifications, especially when borrowers face higher interest rates at the end of their initial fixed or "teaser" rate period and their loan payments increase beyond what they can afford in an environment where they are unable to refinance their loan. However, to determine whether a loan modification is the best course of action, servicers will generally have to review the borrower's current financial situation and re-qualify the loan. It is not advantageous to modify a loan without knowing if the borrower can afford the modified obligations. If they can not, a modification could simply serve to postpone an eventual foreclosure and increase, rather than decrease, the ultimate loss on the loan. This will be particularly important for the large number of loans originated in recent years that were made to borrowers who merely stated their income and asset information instead of providing documented proof (so-called "limited documentation" loans).

Some residential mortgage securitizations have limits on the percentage of loans in any one pool that the servicer may modify. Moody's believes that restrictions in securitizations which limit a servicer's flexibility to modify distressed loans are generally

not beneficial to the holders of the bonds. Loan modifications, when used judiciously, can mitigate losses on mortgage loans and increase the likelihood that bonds will be paid. Consequently, while loan modifications cannot eliminate losses or generate more credit enhancement for a given transaction, we believe that they can typically have positive credit implications for securities backed by subprime mortgage loans.

Pools of securitized 2006 mortgages have experienced rising delinquencies and loans in foreclosure, but due to the typically long time to foreclose and liquidate the underlying property, actual losses are only now beginning to be realized. However, it is likely that a number of factors will determine the ultimate level of loss. We believe that the magnitude and extent of negative home price trends will have the biggest impact on future losses on subprime pools. In addition, reduced availability of credit to subprime borrowers will limit refinancing opportunities and contribute to higher losses. Economic factors, such as interest rates and unemployment, will also play a significant role. Finally, mortgage servicers are expected to play a major role and will need to become more proactive as greater numbers of seriously delinquent borrowers become unable to refinance. Moody's expects creative payment plans, forbearance options and loan modifications to become more prevalent.

Nevertheless, in response to the increase in the riskiness of loans made during the last few years and the changing economic environment, our loss expectations steadily

rose by approximately 30% starting in 2003 through 2006. As a result, bonds that were issued in 2006 and that we rated generally have more loss protection than those with comparable ratings issued in earlier years. We believe that performance of the 2006 mortgages would need to deteriorate significantly for the vast majority of the bonds we have rated "A" or higher to be at risk of loss.

I would be pleased to address any questions that you may have.